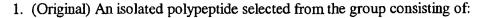
IN THE CLAIMS

This listing of the claims replaces all prior versions of the claims in the application.



- a polypeptide comprising the amino acid sequence of SEQ ID NO:1,
- a polypeptide comprising a naturally occurring amino acid sequence at least 90% identical to the amino acid sequence of SEQ ID NO:1,
- c) a biologically active fragment of a polypeptide having the amino acid sequence of SEQ ID NO:1, and
- d) an immunogenic fragment of a polypeptide having the amino acid sequence of SEQ ID NO:1.

2.-10. Canceled.

- 11. (Currently amended) An isolated antibody which specifically binds to an isolated polypeptide selected from the group consisting of:
- a) a polypeptide comprising with the amino acid sequence of SEQ ID NO:1,
- b) a polypeptide comprising a naturally occurring amino acid sequence at least 90% identical to the amino acid sequence of SEQ ID NO:1, said polypeptide having protein phosphatase activity,
- c) an enzymatically active fragment of a polypeptide having the amino acid sequence of SEQ ID NO:1, and
- d) an immunogenic fragment of a polypeptide having the amino acid sequence of SEQ ID NO:1.
- 12. (Withdrawn) An isolated polynucleotide selected from the group consisting of:
- a) a polynucleotide comprising the polynucleotide sequence of SEQ ID NO:2,
- b) a polynucleotide comprising a naturally occurring polynucleotide sequence at least 90% identical to the polynucleotide sequence of SEQ ID NO:2,
- c) a polynucleotide complementary to a polynucleotide of a),

- d) a polynucleotide complementary to a polynucleotide of b), and
- e) an RNA equivalent of a)-d).

13.-28. Canceled.

- 29. (Withdrawn) A method of assessing toxicity of a test compound, the method comprising:
 - a) treating a biological sample containing nucleic acids with the test compound,
 - b) hybridizing the nucleic acids of the treated biological sample with a probe comprising at least 20 contiguous nucleotides of a polynucleotide of claim 12 under conditions whereby a specific hybridization complex is formed between said probe and a target polynucleotide in the biological sample, said target polynucleotide comprising a polynucleotide sequence of a polynucleotide of claim 12 or fragment thereof,
 - c) quantifying the amount of hybridization complex, and
 - d) comparing the amount of hybridization complex in the treated biological sample with the amount of hybridization complex in an untreated biological sample, wherein a difference in the amount of hybridization complex in the treated biological sample is indicative of toxicity of the test compound.
 - 30. (Withdrawn) A diagnostic test for a condition or disease associated with the expression of PROPHO in a biological sample, the method comprising:
 - a) combining the biological sample with an antibody of claim 11, under conditions suitable for the antibody to bind the polypeptide and form an antibody:polypeptide complex, and
 - b) detecting the complex, wherein the presence of the complex correlates with the presence of the polypeptide in the biological sample.
 - 31. (Original) The antibody of claim 11, wherein the antibody is:
 - a) a chimeric antibody,
 - b) a single chain antibody,

- c) a Fab fragment,
- d) a F(ab')₂ fragment, or
- e) a humanized antibody.
- 32. (Original) A composition comprising an antibody of claim 11 and an acceptable excipient.
 - 33. (Withdrawn) A method of diagnosing a condition or disease associated with the expression of PROPHO in a subject, comprising administering to said subject an effective amount of the composition of claim 32.
 - 34. (Original) A composition of claim 32, wherein the antibody is labeled.
 - 35. (Withdrawn) A method of diagnosing a condition or disease associated with the expression of PROPHO in a subject, comprising administering to said subject an effective amount of the composition of claim 34.
 - 36. (Original) A method of preparing a polyclonal antibody with the specificity of the antibody of claim 11, the method comprising:
 - immunizing an animal with a polypeptide consisting of the amino acid sequence of SEQ ID NO:1, or an immunogenic fragment thereof, under conditions to elicit an antibody response,
 - b) isolating antibodies from said animal, and
 - c) screening the isolated antibodies with the polypeptide, thereby identifying a polyclonal antibody which binds specifically to a polypeptide comprising the amino acid sequence of SEQ ID NO:1.
 - 37. (Original) A polyclonal antibody produced by a method of claim 36.
 - 38. (Original) A composition comprising the polyclonal antibody of claim 37 and a suitable carrier.

39. (Previously presented) A method of making a monoclonal antibody with the specificity of the antibody of claim 11, the method comprising:

- immunizing an animal with a polypeptide consisting of the amino acid sequence of SEQ ID NO:1, or an immunogenic fragment thereof, under conditions to elicit an antibody response,
- b) isolating antibody producing cells from the animal,
- c) fusing the antibody producing cells with immortalized cells to form monoclonal antibody-producing hybridoma cells,
- d) culturing the hybridoma cells, and
- e) isolating from the culture a monoclonal antibody which binds specifically to a polypeptide comprising the amino acid sequence of SEQ ID NO:1.
- 40. (Original) A monoclonal antibody produced by a method of claim 39.
- 41. (Original) A composition comprising the monoclonal antibody of claim 40 and a suitable carrier.
- 42. (Original) The antibody of claim 11, wherein the antibody is produced by screening a Fab expression library.
- 43. (Original) The antibody of claim 11, wherein the antibody is produced by screening a recombinant immunoglobulin library.
- 44. (Withdrawn) A method of detecting a polypeptide comprising the amino acid sequence of SEQ ID NO:1 in a sample, the method comprising:
- a) incubating the antibody of claim 11 with a sample under conditions to allow specific binding of the antibody and the polypeptide, and
- b) detecting specific binding, wherein specific binding indicates the presence of a polypeptide comprising the amino acid sequence of SEQ ID NO:1 in the sample.

45. (Withdrawn) A method of purifying a polypeptide comprising the amino acid sequence of SEQ ID NO:1 from a sample, the method comprising:

- a) incubating the antibody of claim 11 with a sample under conditions to allow specific binding of the antibody and the polypeptide, and
- b) separating the antibody from the sample and obtaining the purified polypeptide comprising the amino acid sequence of SEQ ID NO:1.

46.-57. Canceled.